

(12) UK Patent Application (19) GB (11) 2 294 393 (13) A

(43) Date of A Publication 01.05.1996

(21) Application No 9420928.5

(22) Date of Filing 17.10.1994

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(51) INT CL⁶
A61H 23/00 23/02

(52) UK CL (Edition O)
A5R REQ

(56) Documents Cited
GB 2227942 A WO 86/04809 A1 US 5103809 A

(58) Field of Search
UK CL (Edition N) A5R REB REQ RER
INT CL⁶ A61H 23/00 23/02

(54) Massage apparatus with multiple vibrator units

(57) A massage apparatus with multiple vibrator units comprising a converter and power supplier, a plurality of vibrator units and a base of hive type; wherein said converter electrically connects with said plurality of vibrator units respectively, said base is provided with a plurality of cylinders for receiving these vibrator units selectively as required; therefore, said plurality of vibrator units can optionally massage either a single point or a specific area for a patient.

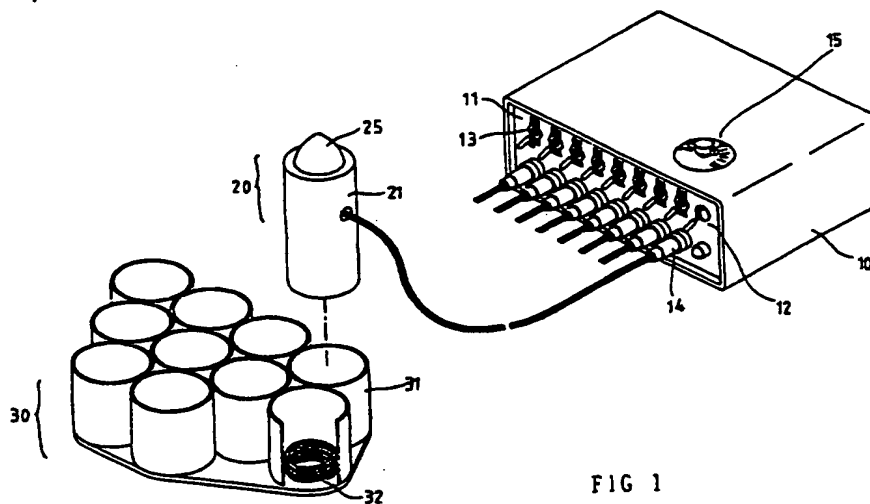
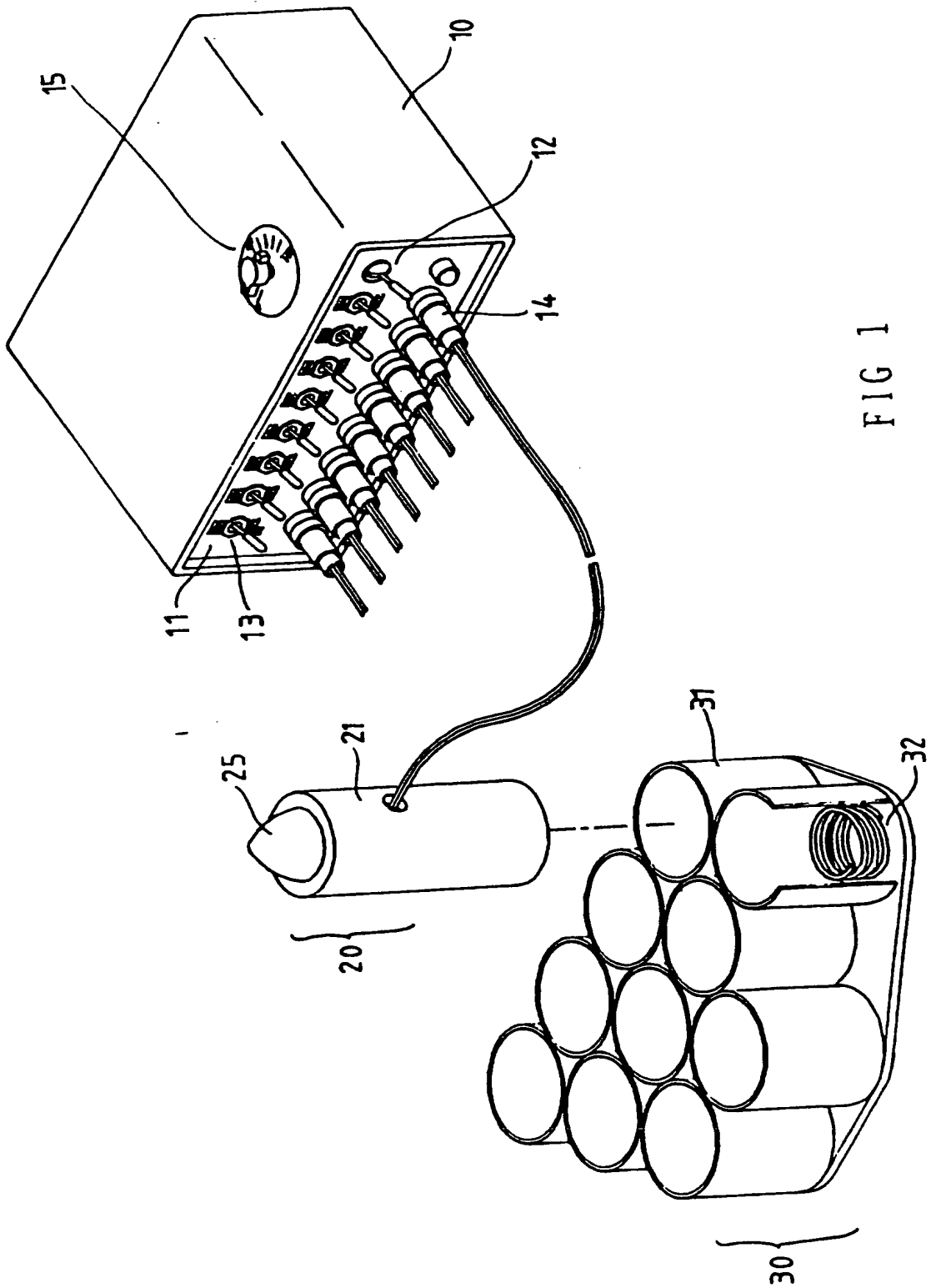


FIG 1



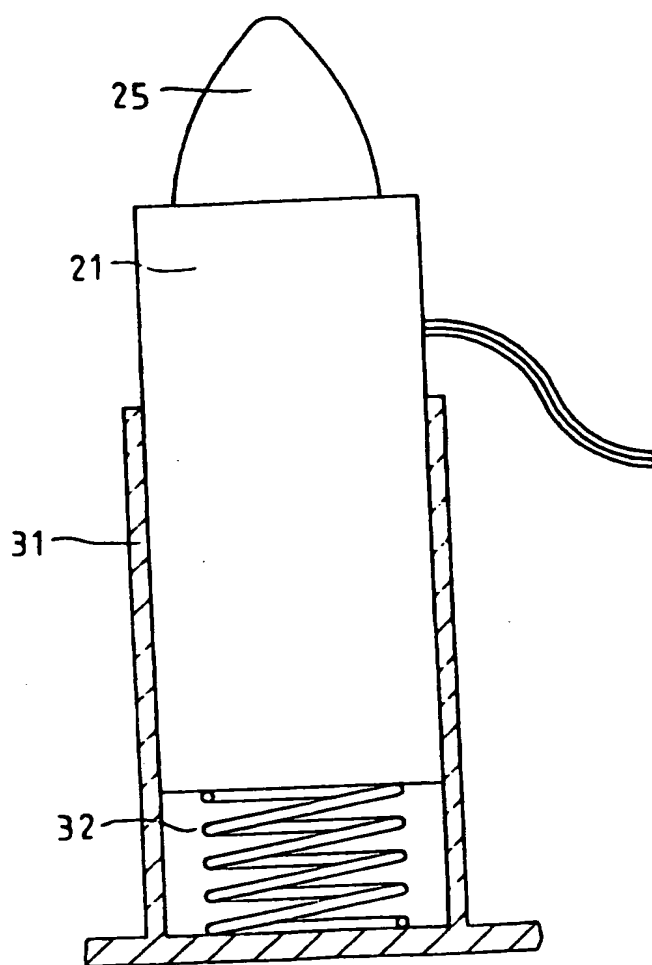


FIG 2

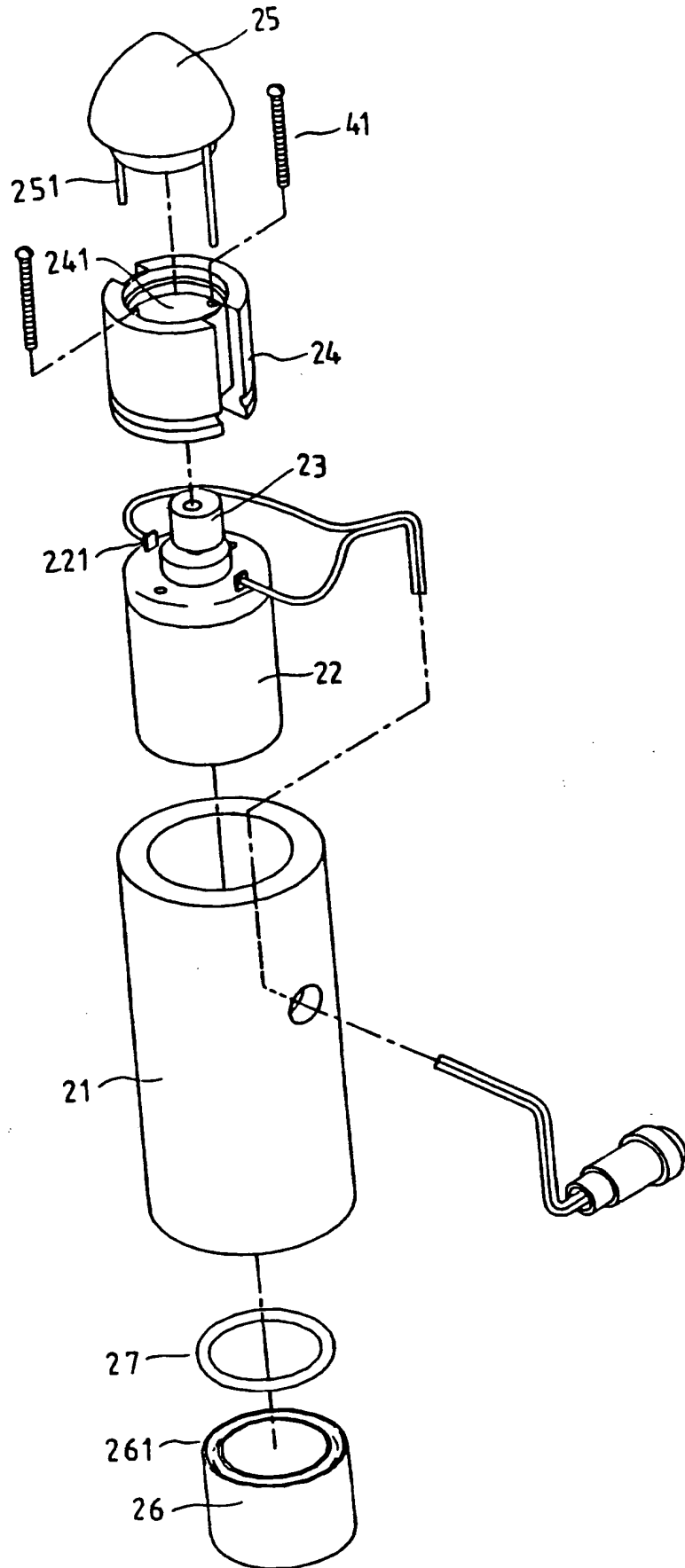


FIG 3

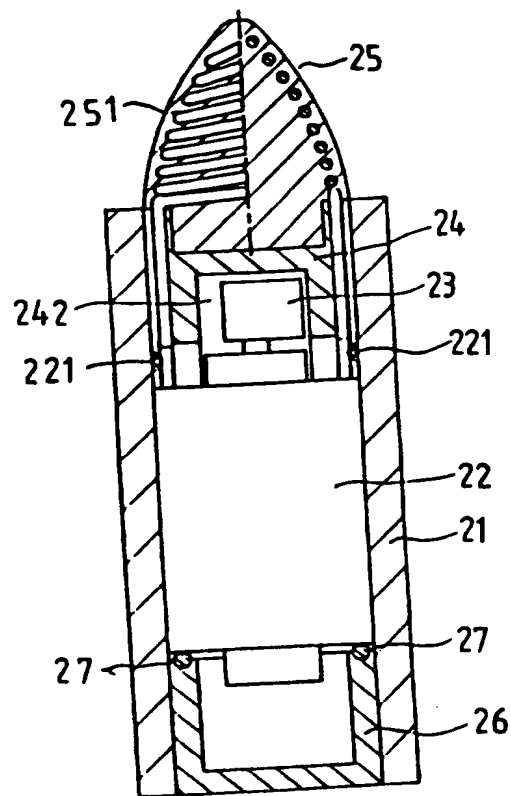


FIG 4

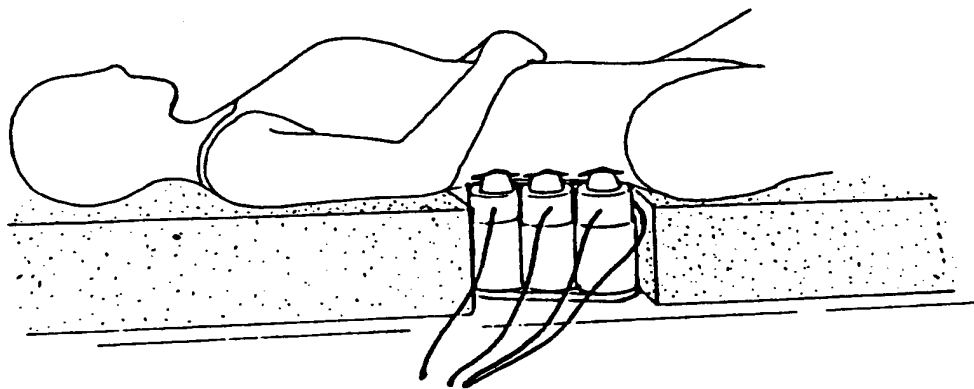


FIG 5

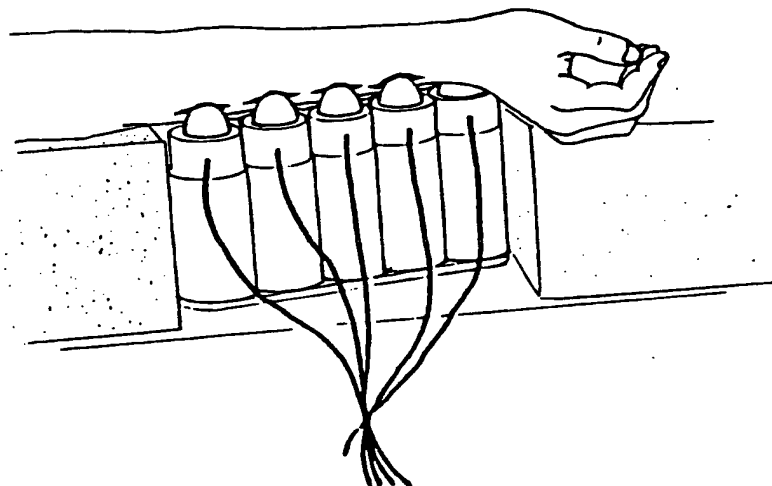


FIG 6

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MASSAGE APPARATUS WITH MULTIPLE VIBRATOR UNITS

The present invention relates to massage apparatus with multiple vibrator units, and more precisely, the present invention relates to massage apparatus in which a plurality of vibrator units are provided to operate either independently for a point massage or in group for an area massage.

BACKGROUND OF THE INVENTION

Traditionally, a treatment adopted by means of the Chinese acupuncture or the electronic acupuncture except the medicine is functionally to stimulate so called vital points and nerve tissues in the human body principally so as to attain a specific remedial purpose. But, it is unfortunate that not all the patients can be cured through the traditional way, and on the contrary, patients who get little effect and even no effect may arise a certain extent of muscle hardening around related vital points after treating. Besides, the blood in the area of muscle hardening becomes sticky and tends to solidification. The complication usually originates from the blood in capillaries has an inadequate circulation and leads to a functionless metabolism so that the nutrition is unable to nourish the cells and the nerve tissues. It is the reason why only taking the medicine or treating by the acupuncture without a normal circulation in the human body is not possible to cure the disease as expected, and deterioratively, it might become worse. In order to make up the deficiencies of traditional medical way, a high frequency oscillation is introduced in prior art massage devices to enhance the circulation

in the capillaries directly, and in addition, an electromagnetic wave, which is able to correct the physical property of ferric ions in the blood, is also applied to promote the circulation in the capillaries indirectly. But prior art massage devices still exist unfavorably defects and some major drawbacks in the prior art devices are listed as follows :

1. The prior art devices are designed to operate by a hand at a time for a point massage only, that is, an area massage could not be performed.

2. Usually, batteries are used as the power source in a prior art device, but it can be understood that electric charges in batteries is very limited and there is a possibility that the prior art device stops running due to an inadequate electric charges in the batteries so that an engaging massage treatment has to be interrupted till a replacement for new batteries is complete.

3. An electromagnetic ball which is made of hard material is fitted on a massage head in a prior art device for pressing against the skin and it is a quite uncomfortable experience for a patient to endure during the treatment.

4. The electromagnetic ball in a prior art device is limited in size so that an electromagnetic wave with effect can not be generated.

SUMMARY OF THE INVENTION

The crux of the massage apparatus with multiple vibrator units according to the present invention resides in the fact that the massage apparatus is provided with a plurality of vibrator

units, a converter and power supplier, and a base similar to a hive. Each vibrator unit is further comprising a vibrating motor and a massage head embedded with a coil. Each of the vibrator units electrically connects to the converter and power supplier individually. If a certain number of the vibrator units are selectively received in the base as required, a specific massage for a greater area can be effectively attained. If a single vibrator unit is operated by a hand, a massage for a vital point can be simply achieved.

An object of the present invention is to provide massage apparatus with multiple vibrator units in which a plurality of vibrator units can be selectively received in a hive type base to massage a specific greater area for a patient.

Another object of the present invention is to provide massage apparatus with multiple vibrator units in which a single vibrator unit is capable of operating with a hand to massage a specific vital point.

Another object of the present invention is to provide massage apparatus with multiple vibrator units with which a massage for a specific location or area can be achieved especially while a patient is lying down on the bed.

Another object of the present invention is to provide massage apparatus with multiple vibrator units in which a massage head of flexible plastic on each vibrator unit is embedded a coil to connect with the power source of direct current for generating an effective electromagnetic wave.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be further illustrated, by way of example, with reference to the accompanying drawings in which;

Fig. 1 is a perspective and partial cut off view showing a preferred embodiment of the present invention;

Fig. 2 is a plan section view showing a vibrator unit in Fig 1 receiving in the base;

Fig. 3 is a disassembled perspective view for the vibrator unit;

Fig. 4 is an assembled section view for the vibrator unit;

Fig. 5 and Fig. 6 are perspective views illustrating a respective application for massaging a specific greater area by means of a massage apparatus according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

By reference to Fig. 1, the massage apparatus is composed of a converter and power supplier 10, a plurality of vibrator units 20 (one unit is shown in the Figure only) and a base 30 of hive type. The converter and power supplier 10 is provided to convert the domestic alternate current of 120V into a direct current of 5V. A control panel 11 which is located at the front face on the converter 10 is provided with a power switch 12, a plurality of vibrator switches 13 and a plurality of output ports 14. Each output port 14 is electrically connected to each vibrator unit respectively. A timer 15 is located at the upper surface on the converter 10 for presetting a required massage time. An outer sleeve 21 on each vibrator unit 20 is made of formed rubber and a massage head 25 of bullet shape is located at the upper end of the

sleeve 21. Each vibrator unit 20 can be held independently by a hand to massage a vital point. A plurality of vertical cylinders 31 are integrated with a base plate to form the base 30 of hive type. Each vertical cylinder 31 has an inner diameter almost same as the outer diameter of the sleeve 21 so that a certain number of vibrator units 20 can be stably received in the base 30 as required at a time to massage a specific greater area such as the waist, the arm, etc. Referring to Fig. 2 it can be clearly seen that a vibrator unit 21 is fitted in a cylinder 31 against a spring 32 at the lower part and the massage head 25 extending out of the cylinder 31. The spring 32 plays a role of shock absorber so that an uncomfortable feeling can be avoided during performing an area massage especially while a patient is lying down.

Fig. 3 and Fig. 4 illustrate a vibrator unit 20 in detail respectively. Beside the sleeve 21, a motor 22 is provided in the vibrator unit 20 to couple with an eccentric wheel 23 at the motor shaft so as to generate a high frequency oscillation as the eccentric wheel 23 is gravitationally rotated with a centrifugal force. A cover 24 for the motor 22 is cylindrical and provided with an upper recess 241 fitting with the massage head 25. A lower recess 242 is further provided to offer a turning space for the eccentric wheel 23. The cover 24 is fastened to the motor 22 by means of two screws extending through a partition between both recesses 241 and 242. The massage head 25 is made of flexible plastics and has a shape of bullet head with an embedded coil 251. Both ends of the coil 251 extends downward along two opposite vertical grooves cut into the surface of the cover 24 respectively

so that an electromagnetic wave may be generated to perform an assistant treatment except a vibrating massage while the direct current is flowing over the coil 251. A cylindrical seat 26 for the sleeve 21 is provided with an annular recess 261 at the upper end to locate a shock absorbing ring 27 to reduce the vibration transmitting via the lower casing of the motor 22.

Through the preceeding description with regard to the embodiment, it is apparent that the massage apparatus with multiple vibrator units offers a better massage function for patients, that is, the massage head 25 with an embedded coil 250 electrically connects with a same power source as the motor 22 does so that each vibrator unit 20 can carrying out a massage in association with an electromagnetic wave treatment effectively. In addition to a point massage operated by means of a single vibrator unit, a group of vibrator units 20 joining with the base 30 of hive type can perform an area massage as required.

Fig. 5 and Fig. 6 show a specific number of vibrator units are well arranged to massage the waist and the arm respectively. Furthermore, the massage apparatus is capable of being preset the treating time to enhance the effect virtually. It is appreciated that usually a local muscle hardening on the skin softens and then disappeared gradually after treatment of the massage apparatus. Furthermore, the circulation in capallaries of the tissues becomes normal automatically.

CLAIMS

1. Massage apparatus with multiple vibrator units comprising a converter and power supplier in which a plurality of connectors are disposed adjacently with each other to correspond with a plurality of switches nearby respectively,

a plurality of vibrator units in which each unit further comprising an outer sleeve, a massage head of bullet head type with an embedded coil, an inner motor coupling with an eccentric wheel, a cylindrical cover and a lower cylindrical seat, and

a base of hive type in which a base plate integrated with a plurality of neighboring upright cylinders with a respective spring seating in the lower part of each of said plurality of cylinders; characterized in that

said converter electrically connects said plurality of vibrator units at said plurality of connectors and supplies a direct current to said plurality of vibrator units through said plurality of switches respectively and said plurality of vibrator units can be either detachably received in said base by way of resting on said plurality of springs respectively in said plurality of cylinders with the respective massage head extending outwardly for massaging a specific area or held independently by a hand for massaging a single point.

2. Massage apparatus with multiple vibrator units according to claim 1 wherein said massage head is located at the upper end of said outer sleeve and fits with said cover which is fixing to

said motor so that said eccentric wheel can be rotated in the lower part of said cover.

3. Massage apparatus with multiple vibrator units according to claim 1 wherein said motor rests on said seat located at the lower end of said outer sleeve and electrically connects with said coil.

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Patents Act 1977
Examiner's report to the Comptroller under Section 17
(The Search report)

Application number
 GB 920928.5

Relevant Technical Fields

- (i) UK Cl (Ed.N) A5R (REQ, REB, RER)
 (ii) Int Cl (Ed.6) A61H 23/00, 23/02

Databases (see below)

- (i) UK Patent Office collections of GB, EP, WO and US patent specifications.

Search Examiner
 Dr J HOULIHAN

Date of completion of Search
 2 FEBRUARY 1995

Documents considered relevant following a search in respect of Claims :-
 1 TO 3

i)

Categories of documents

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| <p>X: Document indicating lack of novelty or of inventive step.</p> <p>x: Document indicating lack of inventive step if combined with one or more other documents of the same category.</p> <p>A: Document indicating technological background and/or state of the art.</p> | <p>P: Document published on or after the declared priority date but before the filing date of the present application.</p> <p>E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.</p> <p>&: Member of the same patent family; corresponding document.</p> |
|--|---|

Category	Identity of document and relevant passages	Relevant to claim(s)
A	GB 2227942 A page 1 lines 24 to 33, page 2 lines 1 to 5 and 23 to 24, page 7 lines 5 to 8, page 11 lines 25 to 26	
A	WO 86/04809 A1 page 2 lines 6 to 12, Claims 2 and 3	
A	US 5103809 Figure 1, column 1 lines 17 to 25 and 43 to 48, Claim 1	

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).

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